

DESCRIPTIONS OF SIX NEW SPECIES OF LAND-SHELLS FROM
ANNAM.

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Read May 12th, 1893.

THE specimens about to be described formed part of the collection of the late M. Emile Eudel, and were obtained by Mr. Fulton when that collection was sold a few months ago. With the exception of the two species of *Cyclophorus* all were collected by M. Eudel himself in 1890. A note accompanying the specimens reads as follows:—“Récoltés vivants dans les Montagnes boitées du Huyen de Tri-phuoc, Province Binh-dinh, An-nam.”

Both the *Rhyssota* and the *Hadra* are very fine species, and the *Amphidromus* is remarkable for the peculiar varix on the back of the body-whorl.

The two species of *Cyclophorus* were collected on the “Collines du Village de Vung-chao, Song-can.” It is with considerable hesitation that I venture to describe new species of this genus, notorious for the uncertainty of many of the species already published.

MACROCHLAMYS PROMISCUA.

Testa depressa, orbicularis, parum elata, anguste perforata, supra fusco cornea, vix nitida, infra pallida, albo-cornea, polita; anfractus $6\frac{1}{2}$ lente accrescentes, convexiusculi, incrementi lineis ad suturam confertis striisque spiralibus minutis numerosissimis supra sculpti, ultimus ad peripheriam obsolete angulatus, infra haud concentricè striatus; spira depresso conica, ad apicem obtusa, pallida; apertura oblique lunata, cæruleo-albida; peristoma tenuissimum, margine columellari leviter incrassato, supra umbilicum breviter reflexo. Diam. maj. 31 mm., min. 28, alt. 19. Apertura 16 lata, 14 alta. *Hab.*—Annam.



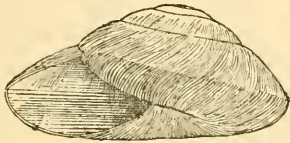
Macrochlamys promiscua, n.sp.

This species is remarkable for the contrast in colour and sculpture of the upper and under surfaces. The fine puckering at the suture, caused by very numerous arcuate and oblique lines of growth, is also peculiar.

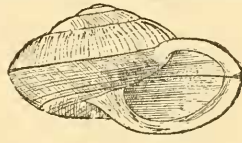
RHYSSOTA PERGRANDIS.

Testa magna, sinistrorsa, depresso conoidea, obtuse carinata, profunde et medioeriter late umbilicata, solidiuscula, supra fusca, apicem versus pallidior, rufescens, hic illic colore saturatiore oblique et arcuatis strigata, ad carinam pallida, infra zona latissima nigro-fusca ornata, circa umbilicum olivaceo-lutescens; anfractus $5\frac{1}{2}$ celeriter accrescentes, convexiusculi, lineis incrementi validis, valde obliquis et arcuatis, striisque spiralibus numerosis granulatis decussatis (in anfr. ult. sensim evanidis) ornati, ultimus ad peripheriam acute angulatus, antice haud descendens, infra medium haud granulatus; spira brevis, ad apicem obtusissima; apertura perobliqua, intus subopalescens, bipartita, parte superiori albo-cærulea, inferiori saturate nigro-fusca; peristoma validum, vix incrassatum, ad marginem dilute fuscens, margine inferiore maxime recedente, columellari late sinuato, ad insertionem expanso. Diam. maj. 78 mm., min. 64; alt. 40. Apertura 39 lata, 30 alta. *Hab.*—Annam.

This species is as large as *R. Brookei*, Adams and Reeve, from Borneo, and like that shell, it is sinistral. It is, however, more depressed, thinner and openly umbilicated. It is a very fine species and cannot be mistaken for any of the known sinistral forms.



Rhyssota pergrandis, n.sp.



Helix (Hadra) pachytilus, n.sp.

HELIX (HADRA) PACHYCHILUS¹.

Testa dextrorsa, late et profunde umbilicata, orbicularis, subconoidalis, carinata, valida, crassa, flavescens, versus apicem rubescens, lineis angustis spiralibus pluribus rufis præcipue infra peripheriam ornata, ad carinam zona angusta saturatiore cineta, in umbilico interdum rufescens: anfractus 5 convexiusculi, sublente crescentes, undique minute granulati, lineisque incrementi sculpti, ultimus postice forte carinatus, carina antice plus minus evanescente, haud descendens; spira paulo elata, ad apicem obtusa; apertura fere horizontalis, alba, linea mediana rufescente dimidiata, late lunata; peristoma maximum, late expansum et reflexum, album, ad marginem pallido-rufo tinctum, in medio ad lineæ finem rufo notatum, margine

¹ The Publication Committee greatly regret the description of this species has been forestalled in a manner that calls for special comment and protest. While these sheets were preparing for the press, the holder of the type specimens being on a visit to the United States exhibited examples to a well-known conchologist there, and left one with him. The latter individual at once proceeded to describe and figure the species, although he had been informed that it was Mr. Smith's intention to do so. It is true that he has adopted the author's specific name and even added "Smith MS.," but the right of priority is nevertheless taken from Mr. Smith. Further comment is unnecessary.

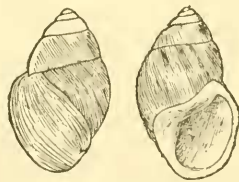
columellari umbilicium versus late dilatato, callo tenui labro juncto. Diam. maj. 62 mm., min. 50; alt. 36. Apertura cum perist. 38 lata, 28 alta. *Var.*—Testa omnino castaneo-rufa, ad carinam saturate anguste zonata. *Hab.*—Annam.

On examining the spire it will be observed that after the formation of the two first whorls, there is a strong mark of arrested growth. On the completion of each succeeding whorl there is a similar mark, possibly indicating a season's growth. If this surmise be correct, it would take four years for the animal to obtain its full dimensions.

H. granulifera, Möllendorff, from China, has similar sculpture, but is of a different form, has a somewhat stronger keel and a less expanded lip to the aperture.

AMPHIDROMUS COSTIFER.

Testa rimata, ovata, dextrorsa, solida, albida, supra anfract. ultimum purpureo-fusco plus minus strigata vel variegata; anfractus sex convexiusculi, sutura leviter obliqua sejuncti, lineis incrementi (in anfr. ult. rugosis) striati, striis spiralibus obsoletis sculpti, ultimus a tergo varice albo perobliqua valido instructus; apertura late subauriformis, longit. totius $\frac{1}{2}$ aequans, intus albida; peristoma album, incrassatum, margine dextro leviter reflexo, columellari late dilatato, superne callo albo erasso latissimo labro juncto; columella subperpendicularis, leviter contorta: spira conoidea, marginibus convexis. Longit. 47 mm., diam. 24. Apertura intus 21 longa, $13\frac{1}{2}$ lata. *Hab.*—Annam.



Amphidromus costifer, n.sp.

This species is remarkable for its short ovate form, the somewhat rugose lines of growth, and its irregular auriform aperture; but especially for the varix or former lip on the back of the body-whorl. This apparently indicates a period of arrested growth, probably of the previous year. It occurs in all the specimens as yet known, seven in number, with the exception of one of immature growth. This is in nice fresh condition and shows that the colour of the species is much brighter in the young shells. Beneath the suture the whorls are faintly margined with pale yellow, and, between the varix on the back of the last whorl and the lip, the surface is whitish, the purple-brown markings which occur on the rest of the whorl ceasing at the varix. This species sometimes attains larger dimensions than those given above, the finest specimen having a length of 54 millim.

CYCLOPHORUS EUDELI.

Testa turbinata, mediocriter umbilicata, sordide albida, lineis interruptis spiralibus punctatis fuscis picta, prope peripheriam zona angusta nigro-fusca cincta; spira breviter conica, apicem versus rufescens; anfractus $5\frac{1}{2}$ celeriter crescentes, convexi, lineis incrementi tenuissimis obliquis striisque spiralibus minutis confertis sculpti, tres primi haud spiraliter striati, lineisque incrementi magis distantibus, sutura profunda subanaliculata sejuncti, ultimus rotundatus, inferne pallidior quam supra, circa umbilicum haud lineata vel picta; apertura mediocriter magna, fere circularis, alba; peristoma albidum, incrassatum, reflexum, in exemplis peradultis maxime et late incrassatum. Diam. maj. 41 mm., min. 31, alt. 33. Apertura intus 18 longa et lata. *Hab.*—Annam.

CYCLOPHORUS CONSOCIATUS.

Testa C. Eudelo similis, sed coloribus saturatioribus picta, spira altiore, anfractu ultimo magis globoso, umbilico angustiore, peristomate rubro, margine columellari reflexo umbilicum semiobtegente. Diam. maj. 39 mm., min. 31, alt. 34. Apertura intus 18 longa et lata.

This species is spirally striated like *C. Eudeli*, but is distinguished by its red peristome, narrower umbilicus and darker colouring. The spiral lines are not interrupted but are close together, and being of a dark burnt brown colour give the general appearance of the shell a much darker tone than that of *C. Eudeli*. The under-surface of the body-whorl also is more darkly lined, the infra-peripheral band being much broader. The three apical whorls of both are similarly sculptured with somewhat remote lines of growth, and are destitute of the spiral striae which occur on the rest. The completion of three volutions is marked off by a slight oblique depression, indicating a pause in growth. Two or three similar marks of periodic growth can also be traced at intervals.

C. Pearsoni, Benson, from the Khasi Hills, in some respects resembles this species, but it is less globose and has a more open umbilicus.